

The opinion in support of the decision being entered today was **not** written
for publication and is **not** binding precedent of the Board.

Paper No. 35

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte GUY LICHTENWALTER and NORMAN D. MARSCHKE

Appeal No. 2002-1782
Application No. 08/709,354

ON BRIEF

Before ABRAMS, McQUADE, and NASE, Administrative Patent Judges.
ABRAMS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-4 and
21. Claims 5-20 have been withdrawn from consideration as being directed to a non-
elected invention.

We REVERSE.

BACKGROUND

The appellants' invention relates to a method for registering a component lead. An understanding of the invention can be derived from a reading of exemplary claim 1, which has been reproduced below.

The single prior art reference of record relied upon by the examiner in rejecting the appealed claims is:

Sakemi	5,713,126	Feb. 3, 1998 (filed June 28, 1996)
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Claims 1-4 and 21 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Sakemi.¹

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejection, we make reference to the Answer (Paper No. 31) for the examiner's complete reasoning in support of the rejection, and to the Brief (Paper No. 30) and Reply Brief (Paper No. 32) for the appellants' arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art reference, and to the

¹A rejection of claims 1-4 and 21 under 35 U.S.C. § 112, first paragraph, was withdrawn in the Answer.

respective positions articulated by the appellants and the examiner. As a consequence of our review, we make the determinations which follow.

The appellants' invention is directed to a method of soldering component leads to pads on the surface of a printed circuit board. Claim 1 reads as follows:

1. A method comprising:
 - providing a solder mound having a U-shaped lateral cross section disposed along a surface of a printed circuit board, the solder mound having a lateral bridge portion, and having both first and second arm extremities extending in a longitudinal direction away from the bridge portion along the surface of the printed circuit board;
 - tapering the first and second arm extremities of the solder mound in the longitudinal direction away from the bridge portion along the surface of a printed circuit board, so as to form tapered solder mound extremities and a tapered solder mound aperture laterally therebetween;
 - disposing a component lead proximate to the tapered solder mound aperture; and
 - registering the component lead in the tapered solder mound aperture along the tapered solder mound extremities.

Anticipation is established only when a single prior art reference discloses, either expressly or under the principles of inherency, each and every element of the claimed invention. See In re Paulsen, 30 F.3d 1475, 1480-1481, 31 USPQ2d 1671, 1675 (Fed. Cir. 1994) and In re Spada, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990).

Sakemi is directed to mounting electronic leads on a circuit board, and discloses a U-shaped mound of solder for receiving a component lead. The arms of the solder mound are of constant width throughout their length, including the extremities thereof, as shown in Figure 2. The cross section of the solder mound in each of the arms is rounded, as is apparent from Figure 3. It is the examiner's position that the rounded cross section of the solder mound constitutes "tapering" in the longitudinal direction away from the bridge along the surface of the printed circuit board (Answer, pages 3-5).

We do not agree with the examiner's conclusion. From our perspective, even conceding, arguendo, the rounded cross section of the solder arms disclosed in Sakemi to be "tapered," they are not tapered "along the surface of a printed circuit board," as required by the claim, but perpendicularly to the surface of the board. We arrive at this conclusion on the basis of the clear meaning of the language recited in the claim, which is confirmed by the illustration of this feature of the invention in Figure 4E of the appellants' drawing.

Since Sakemi fails to disclose or teach this step of claim 1, we will not sustain the rejection. Nor, it follows, will we sustain the like rejection of claims 2-4, which depend from claim 1.

Independent claim 21 also contains the limitation regarding the orientation of the taper, and therefore we also will not sustain the rejection of this claim.

CONCLUSION

The rejection is not sustained.

The decision of the examiner is reversed.

NEAL E. ABRAMS
Administrative Patent Judge

JOHN P. McQUADE
Administrative Patent Judge

JEFFREY V. NASE
Administrative Patent Judge

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